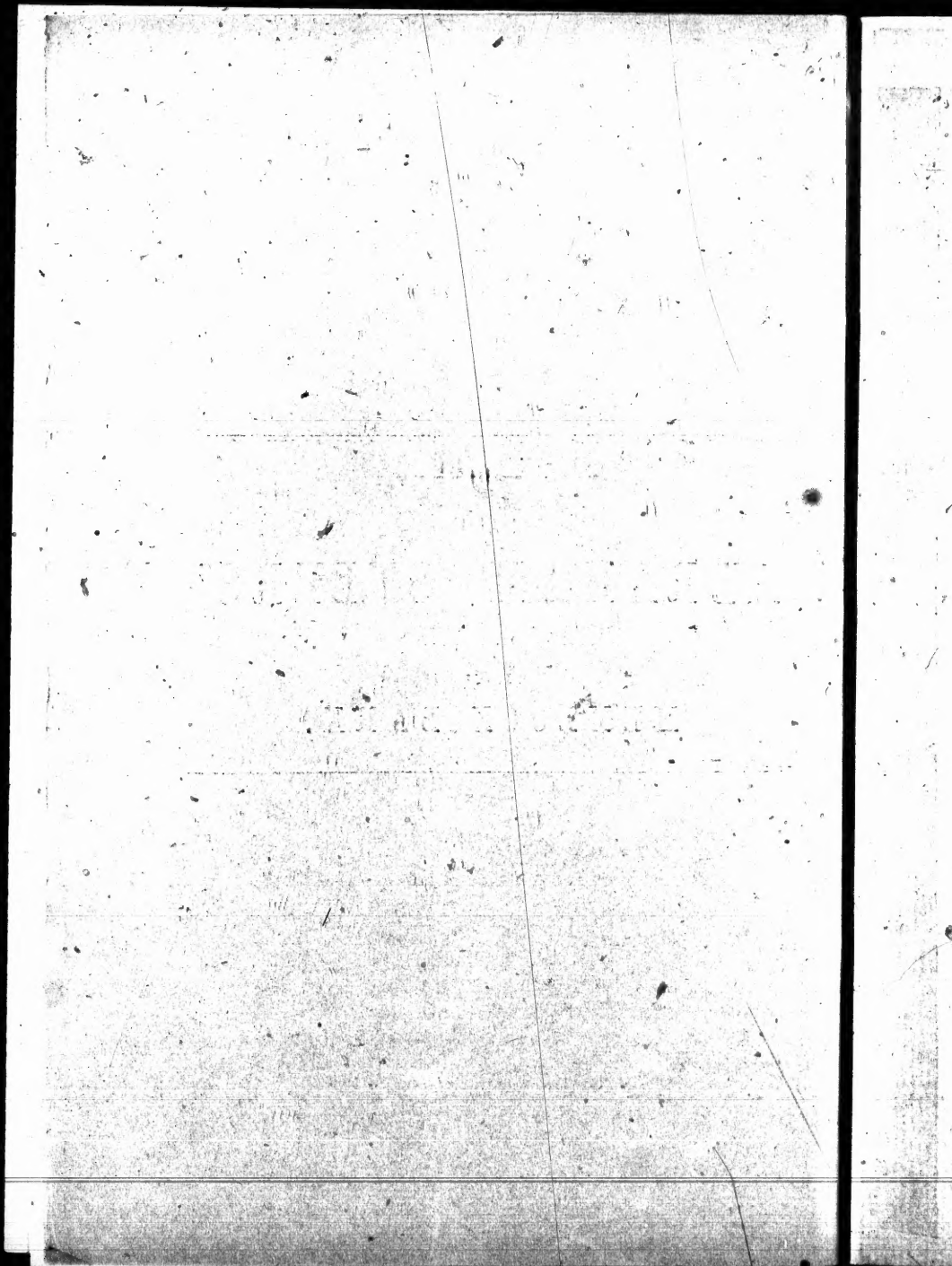


A

PATENT
OF
ABRAHAM STEERS'
EXTRACT OF TANNING
FROM
HEMLOCK BARK.



PROSPECTUS.



PROSPECTUS:

CANADA TANNING EXTRACT COMPANY.

It is proposed to form a Joint Stock Company under the provisions of the Statutes of 13th and 14th Victoria, cap. 28, and 16 Victoria, cap. 172, for the purpose of manufacturing, for the use of Tanners, an Extract of the astringent salts inherent in Hemlock Bark.

The corporate name of the said Company to be "*The Canada Tanning Extract Company.*"

That the object of the formation of the said Company is, the manufacturing for the use of Tanners, by the process for which Letters Patent of Invention were granted by the Government of Canada on the 21st April, 1855, to Abraham Steers, an Extract of the astringent salts inherent in Hemlock Bark.

That the amount of the Capital Stock of the said Company shall be £20,000.

That the term of the existence of the said Company shall be Ten Years from the 21st

That the object of the Company shall be to carry on the business of Tanners, by the process for which Letters Patent of Invention were granted by the Government of Canada on the 21st April, 1855, to Abraham Steers, an Extract of the astrigent salts inherent in Hemlock Bark.

That the amount of the Capital Stock of the said Company shall be £20,000.

That the term of the existence of the said Company shall be Ten Years from the 21st April, 1859.

That the chief place of business shall be for the present at Toronto, and the operations of the Company extended throughout the Province, wherever the raw material for the manufacture may be most readily obtained.

That the Capital Stock of the Company shall be divided into 40 shares of £500 each, of which the owners of the Patent are to take one half: it being understood that they sell and convey the exclusive right to the Patent in Canada, for the sum of £10,000, which sum is at once to be placed to their credit on the Books of the Company, and paid up by debiting them with each call as made, on the Stock so to be held by them.

THOMAS STEERS.

Toronto, March 24th, 1859

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P A T E N T

OF

ABRAHAM STEERS'

Extract of Tanning from Hemlock Bark.

TORONTO, 15th March, 1859.

It is unnecessary to dilate upon the fact which must be obvious to every business man, that the great desideratum to make the Province of Canada prosperous is, the production from the raw material of the Province, of manufactures which will command a ready and constant sale in foreign countries, and which will be remunerative to the manufacturer, and especially those manufactures which *require no protective duty*—for every dollar thus brought into the country and disseminated there, is so much money added to the wealth of the community; and the following statements are presented to the reader under the impression, and, I may add, with the well-grounded knowledge, that the Extract of Tanning from Hemlock Bark is a manufacture which will command for itself all the advantages above recited.

In the very important and expanding trade of tanning leather, it is acknowledged, that vegetable astringents are the best medium to produce the required result; and that Bark is the article, and the only one known, on which Tanners can depend for a certain supply to manufacture leather, and reflection will at once satisfy the most unthinking, that the price or value of Bark (a bulky material) is enhanced in proportion to the distance between the place of its growth and the place where it is used: it therefore follows, as a mathematical certainty, that

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to reduce its bulk without injury to its astringent qualities is the result required, to make the Hemlock Bark of this country an article of lucrative export; for the crude astringent salts of Hemlock Bark compose only one-twelfth of its usual bulk, and one-eighth of its weight. The weight of a cord of Hemlock Bark being about 2000 lbs., the crude astringent salts therefore weigh 250 lbs., or thereabouts.

The brother of the writer—Mr. ABRAHAM STEERS—a practical Tanner himself (and probably more thoroughly acquainted with its science than any man on this continent), having for very many years turned his attention to the means of producing the Extract of Tanning from Hemlock Bark, so as to make it an article of commercial export, has at length succeeded, and obtained a Patent for the Province of Canada, and also for the United States, for producing an extract of the astringent salts of Bark, without in the slightest degree injuring its tanning qualities—*By supplying water to generate steam for the extraction of the properties inherent in vegetable substances (reducible by water or steam) by the condensation of said steam, and its return to where it was generated,—thereby concentrating the properties so extracted to the condensation required.*

By this Patent the astringent salts inherent in one and one half cords of Hemlock Bark can be so concentrated or condensed as to be contained in a forty-gallon cask, in weight from 365 to 400 lbs., and thus is attained the object desired—its adaptation as an article of commercial supply to foreign countries, as well as for consumption in any part of the Province where Bark is scarce, that can be reached by water or rail; and it is a well-known fact, that many tanneries in this Province and the United States, in the construction of which large capital has been invested, have been abandoned, and some are about to be, because the settlement of the surrounding country has denuded it of Bark, and the Bulk of Bark precludes its profitable carriage beyond a limited distance.

This Patent will have the effect of again employing this lost capital, and is further valuable in Canada, for it must come into the general use of Tanners even where Bark is plentiful, as it is not a more, but a less, expensive means of extracting the tannin from Bark, than the leaching or extracting by steam or heated water, at present in common use, and it has this extraordinary advantage, *that from the*

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tan (that is the spent Bark) of the common system—by Mr. Abraham Steers's process of making extract—tanning liquors can be produced one half the bulk of the *tan*, to average a barkometer proof of 10 degrees, which is fully equal to the strength of the best liquors in common tanneries, made from fresh Bark, in this Province and the United States.

The great necessity of extract for the use of Tanners may be properly supported by the facts, well known to the trade, that in Great Britain and Ireland, owing to the scarcity of native Bark, there is an extensive use of extract, made from astringent vegetable substances (see *acacia* and *acacia catechu*, in The Encyclopædia of Useful Knowledge).—She imports extracts from her antipodes, Australia, sumac and valonia or nutt galls from Smyrna the depôt for the Mediterranean bark from Antwerp, also from Spain and Portugal, and other countries tedious to enumerate; and into the United States are imported sumac, valonia, terra japonica, and other foreign preparations, though admitted by those who use them to be in price exorbitant, and resorted to, to facilitate their operations, and from the want of Bark or its extract, rather than from their comparative intrinsic value. France, also, and in fact most European states, are importers of Bark, and all these countries would therefore afford markets for an Extract of Tanning, so indispensable to produce leather, one of the primary necessities of civilized countries.

It is not therefore, I think, arrogating an undue importance for this projected manufacture in this country, to assume, that, if it be conducted with due skill and economy, it may become a rival as an export even to the timber trade, for there are scarcely bounds to its necessity and general use in foreign countries, as well as for home consumption; and these facts, if admitted, ought to obtain for it support and consideration, for it combines public utility with an assured fortune to those who operate its manufacture.

It is scarcely necessary, yet it is not irrelevant to mention, that the Hemlock tree is one of most general growth over the entire of Canada where deciduous trees are found, and especially is it the production of those lands to the north where settlement is scarce, and it extends over surfaces where it is not likely that settlement will take place for a century, if ever, and the timber is of little comparative value. It may therefore be safely concluded, that the supply of

material for making the Extract is as ample as the increase of its use may demand.

It is only necessary to state well-known figures to shew, that this manufacture will be as profitable an investment of capital to the manufacturer, as it is certain to be of the highest importance to all civilized countries. The calculations are based on the principle of selling the Extract to Tanners at the price of the crude Bark, in the localities to which it may be exported, and this extends to wherever Bark is sufficiently scarce to make it profitable, and it is calculated that in those localities it will be the interest of the Tanner to purchase Extract in preference to Bark, inasmuch as he will thereby make a considerable profit in the saving of handling, piling and grinding the Bark, for the Extract wants no preparation, being immediately soluble in water to any strength required,—in fact, with a certain supply of Extract a tannery may be carried on any where, and in premises one eighth the size of those generally used ; and it is further matter of consideration in the investment of capital in this Patent, that, even where Bark is plentiful, no Tanner will carry on his leeching without using STEERS'S EXTRACTOR when its value becomes known, for the whole tanning properties of the Bark ~~can~~ *can thereby* be extracted, and not otherwise, by any means at present known :

In New York, New Jersey, Philadelphia, and the large Cities of the Union, Hemlock Bark costs from \$10 to \$12 per cord, which weighs about 2000 lbs.—1½ cords, say at \$10 per cord, is ...	\$15 00
The cost of Bark, say at Lake Simcoe, as a base of operation, say \$2 per cord—1½ cords.....	\$3 00
On a large scale the cost of making the Extract will not exceed and will most probably be less than \$1 per cord of 2000 lbs., or produce of 1½ cords condensed to—	
40 Gallons, say	1 50
Cost of Cask.....	0 75
Freight to New York and Insurance.....	2 25
Commission, 5 per cent. on its value, \$15	0 75
Cost at New York.....	\$8 25
Apparent Profit	6 75
Or upwards of 81 per cent.....	\$15 00 \$15 00

In England Valonia costs £15, native Oak Bark, £8 to £12, Antwerp Bark, £6 to £8, Spanish or Portugal or Cork-tree Bark, £7 to £8, per ton, sterling money. The following calculation is based on Spanish, which is very similar to Hemlock in its quality and value, yet I allow one-seventh in favour of the Spanish, and value it therefore at £6 per ton, sterling, only:

Say 1½ tons, at £6 sterling,—£9: reckoning sterling	
\$4 84 currency, value of 1½ cords is	\$43 56
Cost in Canada, barreled Extract.....	\$5 25
Freight and Insurance, per barrel	6 50
Commission on value, say \$43 56, 5 per cent.....	2 17
Contingencies, 2 per cent.....	0 87
	\$14 79
Apparent Profit	28 77 per bar.
Or upwards of 194 per cent.....	\$43 56 \$43 56

NOTE.—This calculation is based on value of hemlock bark being to Spanish relatively, as 6-7ths., and it is so, in my opinion, but there is an ample margin for modification should absolute analysis determine it to be of less relative value, and still leave a profit to satisfy the most avaricious in a large manufacture, but there is some probability that it may rate equally, and as corroborative, the writer refers to the Lectures on Tanning, by The Honorable GIDEON LEE—see page 33—where it is stated, that—

Nutt Galls (Valonia) contain about 26 pure tanning,	
Sumac Leaves	" " 18 " "
Hemlock Bark	" " 11 " "

and it is well known to tanners that valonia contains at least double the strength of other barks.

Reference is requested to, and an attentive perusal of, the Appendix that follows, of evidence that the foregoing statements are not based on mere theory, but are the result of practical development and trials, made by men of the highest standing and character, and thoroughly acquainted with the tanning trade in the United States.

Mr. Abraham Steers and the writer (who possesses one undivided half of the Patent for Canada) place the foregoing information before

the reader with the view of obtaining Capital to pursue the manufacture, and they propose a Joint Stock Company, under the provisions of the Act of 13 & 14 Victoria, caps. 27, 28, and the amended Act, 16 Vic. cap. 172, authorising the formation of Joint Stock Companies to manufacture throughout the Province of Canada, and for the detail refer to the Prospectus.

THOMAS STEERS.

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APPENDIX.

CERTIFICATES OF CHEMISTS, TANNERS. &c.

Toronto, May 3, 1850.

MR. STEERS—Dear Sir: In compliance with your request, I feel much pleasure in giving you my opinion as to the probable success of an establishment in this country for the manufacture of a Tanning Extract from *Hemlock Bark* with a view to the export of the article so manufactured to Great Britain and Ireland.

There can be no doubt of the extensive use of extracts made from astringent vegetable substances in the tanneries of England and Ireland, and that such extracts are used, with a view to attain the ends otherwise attainable by the use of the Bark of Oak or Cork tree which is a variety of oak, and it is quite certain that, if Hemlock Bark be at all classable with Oak Bark for tanners' use, the extract made from it, if prepared with the necessary precautions, well known to all practical men in the scientific department of such manufactures, will command a ready sale, and I believe leave a large profit.

The great demand for English Oak Bark of prime quality, and the inferiority of a great portion of the Irish Oak Bark owing to the humidity of the climate, has caused good bark to bear a high price, and even for these five and twenty years past has made it profitable to import from Spain and Portugal the Cork Tree Bark. Now the lowest price of these articles in a British port is at least ten times the cost of a like weight of Hemlock Bark here, consequently if the extract of Hemlock bark be afforded in anything like the quantity afforded by any of the oak barks, and if the character of Hemlock bark for tanning rate fairly, there can be no doubt upon the subject.

On my first arrival in this country, over seven years ago, my attention was called to this subject by one of my family in the tanning department in Ireland, but I was deterred from any investigation of the matter by seeing what a very inferior article the leather manufactured with Hemlock bark is, and I stated my views at the time in letters to Ireland. Now, however, my opinions are certainly shaken by your unhesitating opinion, as given to me, that the inferiority of Canadian Leather is attributable chiefly to the erroneous system pursued by the Tanners of Canada and not to the inferiority of their tanning ingredient, namely, Hemlock bark. Anything short of actually testing the quantity of the tanning principle in a given quantity of the Hemlock bark as compared with that contained in a given quantity of valonia or English oak bark of prime quality will be only a conjecture as to the probable result. I would therefore advise you to institute this investigation, and if the result be in favor of Hemlock bark so far as to show, that it even contains one fourth the tanning property of valonia or one half the tanning property of good English oak bark, in my opinion the manufacture of the Extract would pay well.

There is still another matter to be considered, namely, the coloring property of Hemlock bark; you must therefore ascertain that no objection exists on that score. It is possible there does not, for Cork Tree Bark contains much coloring matter also, and yet it is highly prized.

Believe me, yours sincerely,

JAS. JOHN HAYES.

 S.—It is many years since I was first called on to analyze and value Australian Extract at your father's Tannery.

NEWARK, N. J., March 6, 1854.

MR. A. STEERS: Sir,—I had been some years since interested to some extent in the trade of Bark Extract, as you were informed by Mr. D. B. CROCKETT, and it answered the purposes of the tanners well, and, if judiciously used, cannot fail to be a most useful auxiliary to a tanner.

One large factory of it was burned down. An attempt was then made to get up the price. Many sent in bark ground, and the extract got out of use; but, I am satisfied, not from want of demand, and am convinced that the present want of bark in this and similarly situated localities, would command a large profit, for its manufacture in places where bark is cheap and from whence its transit would be at a low rate, either by canal or railroad.

CHARLES T. SHIPMAN.

NEWARK, N. J., March 7, 1854.

MR. STEERS: Sir,—I have to acknowledge the receipt of your theory of tannage, and your explanation of intended improvements in tanning and manufacturing Bark Extract.

The annexed theory perfectly coincides with my views and experience, as also Prof. PAGE's opinion: that you have the true philosophy of economic tanning, in saving of time, labor and money, and that your improvements in the manufacture of Leather and Bark Extract are most valuable and cannot fail in practicability.

The extract has become a necessity, and tanners are driven to the use of Sumac, Terra Japonica, &c., at exorbitant prices, compared with bark, to facilitate their operations, rather than for their intrinsic value.

I had long experience in the use of extracts, many years ago, and supposed that the necessary attention of other tanners to their immediate trade prevented them, as it does myself, from devoting that time to its manufacture necessary to make a trade of it.

Yours, &c., &c.,

D. B. CROCKETT.

MEDINA, N. Y., Sept. 18th, 1854.

We, the undersigned, comprising all the shoemakers of Medina, in the county of Orleans, and State of New York, having worked up the leather of Mr. ABRAHAM STEERS' manufacture, read over his annexed theories of tanning and rounding sole leather, and examined his process for tanning the same, do hereby, most unhesitatingly, certify our opinion that his speedy process of tanning necessarily makes

leather possessing every and all the most valuable requisites, and of a quality primer than any we ever before saw or used. His samples of Butts, Pates, and Bellies, tanned and finished separately, demonstrate beyond a doubt the improved value of each part by being so tanned and finished.

SAMUEL BOCE, THOMAS GILBERT,
H. M. BEERS, JOHN FERGUSON,
HENRY FERGUSON.

NEWARK, N. J., Nov. 27, 1854.

MESSRS. ROBINSON & RATHBONE, Hide and Leather Merchants, Albany, N. Y.: Gentlemen,—In reply to yours of the 24th instant, as to Mr. ABRAHAM STEERS' capabilities as a practical and scientific tanner. Sometime in last March, Mr. STEERS called at my tannery, and, whilst I showed him over the concern, his suggestion of expedients and thorough knowledge of the business, confirmed me in some opinions I had previously formed, and created doubts as to others. Since then I have made experiments as he suggested, which have resulted in proving his views correct, and a conformable change in my operations.

He visited me again last October, when I acquainted him with the result of the experiments, and mentioned to him some difficulties I then labored under, and for which he immediately suggested a remedy, since acted on successfully. That he is a practical and scientific tanner, I feel certain. His powers of expediency eminently fit him for a manufacturer, and there is no tannery to which, his examination and advice would not prove valuable.

Yours respectfully,

D. B. CROCKET.

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RESULT OF DEMONSTRATION

AT THE

CRYSTAL PALACE.

NEW YORK, Crystal Palace, October, 1856.

At the request and by the advice of some of the Tanning Trade of New York, I have brought before them, at the Crystal Palace, this fair working model to show—

That heavy sole leather can be tanned within four days, and that the use of strong liquors, or quick tanning (with the necessary precautions known to practical tanners) will not injure the leather so tanned.

That the strength or tanning of bark, together with all its auxiliary properties, can be reduced to one-twelfth, the original bulk of the bark ; and that said tannin or extract can be diluted for tanning purposes, without the loss of any of its tanning properties.

To prove which, with my working models, I first made an extract ; and then, with said extract (diluted), I placed for their inspection a heavy tanning into three-fourths of the substance of the leather operated on, within three days, and, in fact, within eighteen hours active operation, leaving and showing one-fourth of the grain side unaltered by tan, the fact being that until each particle of fibre reached by the Salts of Bark, becomes tanned, the approximating fibres remain quite green ; the combination of Salts and fibre being so complete and sudden on contact, that, till each part is tanned, nothing but water passes to the next part or fibre, or escapes finally through the hide, thereby proving, as I have stated, that the Extract can be made without evaporation, and that it can then be diluted and used by tanners.

I then, of the next bark operated on, kept the liquor from becoming thick, so that the Barkometer could prove its strength, as, if allowed to become thick, its thickness would prevent the sinking of the Barkometer, and said liquor floated a great part of the bulb of the Barkometer, measuring about "80"—as the Barkometer was marked only to 60. I also requested the liquor to be smelled and tasted (as the experience of one gentleman satisfied him that where he knew of its manufacture having failed, the taste and smell indicated an extensive destruction of the Bark's tanning properties), and received the following testimonials from the three gentlemen whose opinions I was advised to obtain.

ABRAHAM STEERS,
304 Broadway, N. Y.

NEWARK, N. J., October 25th, 1856.

At the solicitation of Mr. Steers, I visited the Crystal Palace, and gave him my opinion, that if the models he was erecting produced the effects he stated, they ought to be sufficient to remove all doubts of his improvements from the minds of the most incredulous. I found him the raw material and bark to be operated on, and, since then, examined the results; which are in perfect accordance with what is heretofore stated by him, and is most conclusive evidence of his success, to attain which he has spared neither pains or expense.

Of the want and value of the Bark Extracts, I have already given him my opinion, and I congratulate him, and City Tanners, on his unquestionable success.

D. B. CROCKET.

NEW YORK, November 1st, 1856.

At the request of Mr. Abraham Steers, I visited his new process of tanning, and of making extract at the Crystal Palace. I examined the extract, and so far as I could ascertain by taste and smell, it appeared to have all the tanning properties concentrated to great strength, as was indicated by the Barkometer, and which I found (by the same calculation as marked) stood at "80;" whereas 32 degrees

is the highest strength of liquor I have ever seen made by the ordinary way of leeching by our regular Tanners. And I cannot see why it will not greatly facilitate tanners' operations, especially in our cities, by having the extract transported instead of the Bark, as is now the case.

I have also examined his tanning, and see no difficulty in tanning within the time he states. 

THOMAS SMULL.

NEW YORK, November 3rd, 1856.

MR. A. STEERS : Dear Sir,—As you have asked my opinion of your extract of Bark which I saw making at the Crystal Palace, in answer, would state, that I have no doubt it is a good article, and will work well, for I can see no reason why it should not; it appears to contain all the tanning properties of the bark, without injuring it, and could it be afforded at a low price, it might be much used by Tanners in or near any large city, to facilitate their business, to advantage.

With much respect, I remain,

Yours respectfully,

J. R. SMITH.

TANNERS' BARK EXTRACT,

MADE BY

ABRAHAM STEERS.

FERRY STREET, NEW YORK, 13th Nov., 1856.

MR. D. B. CROCKETT, *Tanner, Newark, N. J.*

DEAR SIR,—Understanding that Mr. Abraham Steers has operated with his Bark Extractor of Tannin, in the tannery you are connected with, I would feel much obliged by your informing me of its merits, by answering the following questions.

Yours respectfully,

BENJ. MARSH.

NEWARK, N. J., 13th Nov., 1856.

MR. B. MARSH, *Ferry Street, New York.*

DEAR SIR,—In reply to yours of to-day, I herewith annex replies "*in seriatim*," and also the particulars of experiments made on the Spent Bark of four Newark tanneries.

Yours respectfully,

D. B. CROCKETT.

1st.—How the cost of erections for its manufacture will compare with that necessary for tanners' use, operating on like quantities of bark?

Answer.—The cost of erections need not exceed that now incurred by tanners for their ordinary leeching.

2nd.—How will the cost of its manufacture compare with the present manufacture of tanner's liquor from like quantities of bark?

Answer.—The cost of manufacturing extract need not exceed the cost of manufacturing liquor.

3rd.—Whether his principle of operating effectually takes all the strength out of the bark?

Answer.—There is not and cannot be any tannin retained in the bark that has been operated on by his means of extraction.

4th.—How does its barrelling tannin compare with tanners' ordinary leeching of the strength or tannin from bark?

Answer.—It is calculated to put into a barrel 25 per cent. more strength out of the same quantity of bark than tanners can obtain by ordinary leeching.

5th.—Whether any of its tanning properties are, or are not destroyed by its mode of operating?

Answer.—I cannot see any reason to suppose that any of the properties of tanning or auxiliary to tan can be lost, and its effects on leather convinces me they are all preserved.

6th.—Whether after its manufacture into extract it is capable of being diluted and then used by tanners?

Answer.—Long experience in the use of extracts, and its large annual export from Australia to England, leave no room to apprehend any difficulty about tanning with diluted extract.

7th.—Whether it necessarily or is likely (so made) to stain the leather tanned by it?

Answer.—I never saw a better color from bark liquor than that of the leather experimented on with the extract, and certainly there can be nothing arising from its manufacture to discolor or stain leather.

8th.—How does the extract (so made) compare with the Extract of Bark you have had experience of heretofore?

Answer.—I have had Extract heretofore, possessing all the valuable properties of the bark without any drawback, but oftentimes had it turn out of very indifferent quality—arising, I am satisfied, from the parties engaged in its manufacture not understanding it scientifically, and having no properly fixed principles of operation, whereas the Extract made by Steers's process must be uniformly the same.

9th.—How does its use compare with that of Terra Japonica?

Answer.—Leather can be tanned a better color by this Extract than by Terra Japonica; it will tan fully as quick; and this Extract will amalgamate with the fibre of the hide, so that it cannot be washed out or removed as Terra Japonica can.

10th.—How does ~~the~~ operation on unground Bark compare with its operation on ground ?

Answer.—Its operation on the unground, was as effectual as that on the ground Bark.

D. B. C.

CERTIFICATE.

Each of the undersigned, Tanners of Newark, New Jersey, this 13th day of November, 1856, supplied a bucket of what they considered perfectly spent Bark, had it operated on by Abraham Steers's process of making Extract, and found that it made liquors one-half the bulk of the Bark, to average a Barkometer proof of 10 degrees, which is fully equal to the strength of our best liquors.

CHAS. H. HARRISON & Co.
D. B. CROCKETT.

JAS. IRVING, for Chadwick & Co.
D. S. BATTEY, for N. J. Pat. Tan'g. Co.

NEWARK, December 19, 1856.

Since mine, of the 13th of November, to Mr. Marsh, respecting Mr. Steers' mode of extracting the strength from bark, and my certificate of what it can effect on spent tan, I have operated on it with a wooden vessel, holding about two tons, and am now, if anything, better satisfied of its effect than I was then. The spent tan from the large vessel I tried in his working model, and no strength could be got from it.

D. B. CROCKETT.

NEW YORK, March 3rd, 1857.

FREEMAN HUNT, Esquire.

DEAR SIR,—This will be handed to you by Mr. Steers, who is about to write some articles on the subject of tanning.

I consider Mr. Steers particularly qualified to write on the subject since he is certainly as well, or better qualified than any person I know of—as a practical man ; and then he has other qualifications a theory against which I have not heard an intelligent man in the trade raise a single objection.

I think if you ever open your columns to the consideration of such subjects, you will do well to give Mr. Steers a hearing.

Very truly, yours,

J. S. SCHULTZ.

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